

## **REMARKS**

Claims 38-40 were previously withdrawn from consideration. No claims are amended. Claims 1-37 remain pending. Allowance of claims 1-37 is requested in light of the following remarks.

### ***Claim Rejections – 35 USC § 102***

Claims 1-9, 12, 14, 15, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,534,816 to Chen et al (“Chen”). The applicants disagree.

Claim 1 recites, *inter alia*, a cooling system comprising ***a plurality of coolant inlets and a plurality of coolant outlets formed in a lower one of the plurality of plates*** (emphasis added). Claim 1 also recites a plurality of inner cooling lines connecting each of the coolant inlets to one of the coolant outlets. Thus, by the express language of claim 1, the plurality of coolant inlets, the plurality of coolant outlets, and the plurality of inner cooling lines are formed within the lower one of the plurality of plates. The above features are the specific claim features that the applicants are addressing, and they are the same specific features that the applicant addressed in response to the previous Office Action.

It is alleged that Chen’s element 56 (FIG. 5) discloses a plurality of coolant inlets and Chen’s element 62 (FIG. 5) discloses a plurality of coolant outlets (Office Action, section 7). This is an incorrect interpretation of Chen.

Contrary to the recited features of claim 1, Chen teaches that “the cooling fluid is transferred to and from passageway 56 by ***a [single] vertical inlet hole 66 and a [single] similar outlet hole 68*** which intersect the extreme ends of passageway 56 as shown in FIG. 2, and indicated by dashed lines in FIG. 5” (column 5, lines 23-27; emphasis added).

Chen teaches that the passageway 56 is fabricated by forming a plurality of parallel, spaced apart holes 58 extending horizontally through the electrode 12 (FIGS. 5 and 6; column 5, lines 5-8). Contrary to the recited features of claim 1, a ring 64 is fitted into groove 60 and ***welded to close the ends of alternate holes 58*** (column 5, lines 13-16; emphasis added). This forms “a ***single, continuous, serpentine passageway 56***” in electrode 12 ***to provide for the flow of cooling fluid*** (column 5, lines 20-22; emphasis added).

The point is, and the Examiner has apparently failed to appreciate this, is that once assembly is complete, Chen’s electrode 12 has only “a ***single, continuous, serpentine passageway 56***” (column 5, lines 20-22; emphasis added), with only ***a vertical inlet hole 66*** (singular usage) and ***a similar outlet hole 68*** (singular usage) at either end of the passageway 56 (column 5, lines 23-27; emphasis added). Thus, Chen explicitly teaches that coolant

enters the single, continuous passageway 56 at a single inlet (vertical hole 66) and exits the passageway 56 at a single outlet (outlet hole 68).

Contrary to the Examiner's assertion, Chen's teachings do not at all agree with the applicants' description of a plurality of coolant inlets, a plurality of coolant outlets, and a plurality of inner cooling lines. With reference to FIG. 2, the applicants teach that "**four coolant inlets 411** are arranged symmetrically along the edge of the third plate 350. **Four coolant outlets 415** are also arranged symmetrically along the edge of the third plate 350. **Four separate, independent inner cooling lines 450** are arranged within the third plate 350 **to connect the coolant inlets 411 to the coolant outlets 415**" (specification page 6, lines 25-29; FIG. 2; emphasis added). Arrows are used in FIG. 2 to indicate the direction of coolant flow within the inner cooling lines 450.

Thus, the applicants' specification teaches that a coolant inlet is where coolant enters the claimed lower one of the plurality of plates. Similarly, a coolant outlet is where coolant exits the claimed lower one of the plurality of plates. Similarly, an inner cooling line connects one of the coolant inlets to one of the coolant outlets. As was explained above, Chen teaches only a single coolant inlet, a single coolant outlet, and a single inner cooling line.

Thus, Chen does not teach the explicit claim 1 features of a plurality of coolant inlets formed in the lower one of the plurality of plates, a plurality of coolant outlets formed in the lower one of the plurality of plates, or a plurality of inner cooling lines connecting each of the coolant inlets to one of the coolant outlets. Consequently, Chen fails to anticipate claim 1 because it does not show the identical invention in as complete detail as contained in the claim. MPEP 2131, citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989).

Claims 2-8 inherently contain the features of claim 1. Consequently, under MPEP 2131, Chen does not anticipate claims 2-8 because it fails to teach each and every feature inherent to claims 2-8.

Claim 9 recites an apparatus comprising, *inter alia*, a process chamber and a heater stage located **in** a lower portion of the process chamber (emphasis added). Claim 9 also recites a separating device arranged between a bottom of the process chamber and a bottom of the heater stage, said separating device **configured to separate the heater stage from the bottom of the process chamber** (emphasis added).

The Examiner states that the alleged separating device 44 is arranged (positioned) between a bottom (lowest surface) of the alleged process chamber 30 and a bottom (lowest surface) of the alleged heater stage 40.

It is clearly shown by Chen FIG. 1 that the top (uppermost surface) of the alleged heater stage 40 does not reach the level of the bottom (lowest surface) of the alleged process chamber 30. Thus, contrary to the features recited in claim 9, Chen does not disclose that the alleged heater stage 40 is located *in* a lower portion of the alleged process chamber 30 (emphasis added). Consequently, Chen does not anticipate claim 9 because it does not show the identical invention in as complete detail as contained in the claim. MPEP 2131, citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989).

### ***Claim Rejections – 35 USC § 103***

Claims 10, 11, 13, 16-18, and 20-37 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of U.S. Patent No. 6,120,605 to Sato (“Sato”). The applicants disagree.

Claims 10, 11, 13, and 16-18 inherently contain the features recited in claim 9. It was explained above how Chen failed to teach all the features of claim 9. Sato is not alleged to teach any of the features recited in claim 9. Consequently, under MPEP 2143.03, the Chen/Sato combination fails to establish a *prima facie* case of obviousness because it fails to teach or suggest all the features inherent to claims 10, 11, 13, and 16-18.

Similar to claim 1, claim 20 recites, *inter alia*, a shower head cooling system arranged in a lower plate that includes a plurality of coolant inlets, a plurality of coolant outlets, and a plurality of independent inner cooling lines for connecting each of the coolant inlets to one of the coolant outlets. Thus, for the same reasons outlined above, Chen does not teach these features of claim 20.

Sato is not alleged to teach the features of claim 20 that Chen fails to teach.

Claims 21-37 inherently contain the features of claim 20.

Consequently, under MPEP 2143.03, the Chen/Sato combination fails to establish a *prima facie* case of obviousness for claims 20-37 because it fails to teach or suggest all the features recited in claim 20 or all the features that are inherent to claims 21-37.

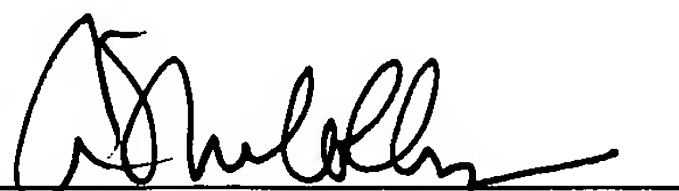
***Conclusion***

For the above reasons, reconsideration and allowance of claims 1-37 is requested. Please telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Alan T. McCollom', written over a horizontal line.

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